

ABSTRACT OF THE DISCLOSURE

A first member of a robot is fixed to a casing of a speed reducer. A second member is fixed by fitting to a rotating member that rotates relatively to the casing. A motor is mounted on the second member, and an input gear that is connected directly to the shaft of the motor and a spur gear of the speed reducer are made to mesh with each other. A crankshaft that is connected to the spur gear is rotatably mounted on the rotating member through a bearing. As the spur gear and the crankshaft rotate, an external gear rocks eccentrically and rotates for on tooth with respect to an internal gear in the casing. Thereupon, the rotating member rotates relatively to the casing, while the second member rotates relatively to the first member. The speed reducer of the invention, compared with a conventional one, requires no use of a center gear, so that it includes fewer components, and therefore, is lower-priced and more reliable.

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